

REMARKS

Applicant has amended claims 22, 24 and 26 to correct informalities.

102 Rejections

- US 3,574,646 to Wismer

The Examiner has rejected claims 1, 4, 22, 24-26, 27 and 29 as anticipated by Wismer. Anticipation exists only when every element of a claim is present in a single prior art reference. Claims 1 and 4 of the present invention are the only remaining independent claims. All dependent claims stand or fall with claims 1 or 4. Claims 1 and 4 include a network of graphitizable carbon. (emphasis added).

Wismer teaches a “cellular carbonaceous char of a body.” Col. 11, lines 41-42. Wismer does not define a “char.” Applicant believes (1) the implicit teaching of Wismer, (2) the ordinary meaning of a “char”, and (3) the technical meaning of char prevent Wismer from anticipating the claims.

First, Wismer includes dozens of references to a “char” but only one reference to a graphite material. The latter was as a fibrous additive to the carbonaceous char body. See, col. 6, lines 31-35. This, at least, implicitly teaches away from the char being graphite or graphitizable. Second, Webster’s Dictionary identifies “char” as to convert to charcoal or carbon usually by heat, or to burn slightly or partly. The Concise Oxford Dictionary defines “char” as to burn or be burnt to charcoal. The ordinary meaning of “char” does not suggest a graphitizable carbon. Charcoal is not graphite. Third, Dr. Juma has submitted an affidavit herewith that, in part, distinguishes “char” from a graphitizable carbon. Juma notes that only a small portion of carbonaceous materials are graphitizable.

In light of the lack of teaching in Wismer, the ordinary meaning of the term “char,” and the technical understanding of what is a “char,” Wismer’s carbonaceous matrix comprising a char, that is, a charcoal or amorphous carbon, cannot be a graphitizable carbon. Claims 1 and 4 of the present invention require a network of graphitizable carbon. Wismer, therefore, lacks at least one element of the claims and cannot anticipate claim 1, 4, 22, 24-26, 27 and 29.

- US 5,750,026 to Gadkaree

The Examiner rejects claims 1, 4 and 22-30 as anticipated by Gadkaree. Anticipation exists only when every element of a claim is present in a single prior art reference. Claims 1 and 4 of the present invention are the only independent claims. All dependent claims stand or fall with claims 1 or 4. Claims 1 and 4 include a network of graphitizable carbon. (emphasis added).

Gadkaree teaches a monolithic porous particulate filter comprising ceramic, glass or metal having a continuous uninterrupted coating of activated carbon distributed over the outer surface. In one embodiment, a body includes inorganic compounds and an organic resin that can carbonize to produce “graphitic structures.” Col. 13, lines 67. The embodiment can produce “random three dimensional oriented graphitic platelets with amorphous carbon between the platelets. Col. 14, lines 7-9 (emphasis added). Activation of the body removes the amorphous resin leaving graphite on the surface. Col. 14, lines 17-18.

Gadkaree neither claims nor describes a network of graphitizable carbon. In fact, Gadkaree teaches against such a network. In the example comprising graphite, the network consists of amorphous carbon in which graphite is dispersed as a discontinuous

matrix. Graphite is, of course, a crystalline form of carbon. Gadkaree shows that the networked, amorphous carbon comprising its matrix not graphitizable. See, e.g., col. 13, lines 67 (heating in an inert or reducing atmosphere does not convert the amorphous phase to graphite); and col. 14, lines 17-18 (heating in an oxidizing atmosphere removes the amorphous carbon).

Gadkaree does not teach a network of graphitizable carbon and so cannot anticipate claims 1, 4 and 22-30.

- US 2007/0090047 to Bell (Bell A)

The Examiner has rejected all pending claims under Section 102(e) as anticipated by Bell A. A terminal disclaimer is not possible because these applications are owned by two different assignees. Nevertheless, Applicant believes he is entitled to a patent over Bell A.

A person shall be entitled to a patent under Section 102(e) unless the invention was filed in the US or, in English, as an international application before the invention by the Applicant. The present application has a US filing date of 2004 November 30, and claims priority to PCT/EP03/05538 filed 2003 May 27, and EP 02012031.7 filed 2002 May 31. Both of these priority documents include reference to a “graphitizable carbon.” The date of invention by the Applicant is clearly no later than 2002 May 31. Applicant submits that neither Bell A nor its claimed prior documents teach a date of invention for “graphitizable carbon” or “a network of graphitizable carbon” earlier than 2006 October 20. Bell A is therefore not prior art against the present application.

Bell A was filed on 2006 October 20 exactly one year after the publication of the present application, which occurred on 2005 October 20. Bell A claims to be a

continuation of US 10/362,751, now US 7,138,084, filed on 2003 February 26, and claims ultimate priority to PCT/GB01/03846, which has an international filing date of 2001 August 28. The Examiner has used the filing date of this PCT application to reject the claims under Section 102(e).

Bell A was filed to provoke an interference with and admittedly copied claims 1, 4 and 22-50 of the present application. See Remarks/Arguments in the preliminary amendment dated 2006 October 20 (adding new claims 23-53 directed to a network of graphitized carbon). Bell A's preliminary amendment does not cite antecedent basis for these new claims. Except for the copied claims, Bell A does not teach, describe, or even mention a graphitized carbon, a network of graphitized carbon, a graphitizable carbon, or a network of graphitizable carbon. The documents from which Bell A claims priority also do not include any reference to a graphitized carbon, a network of graphitized carbon, a graphitizable carbon, or a network of graphitizable carbon. Accordingly, Applicant submits claims 23-53 of Bell A constitute new matter for which Bell A cannot rely on its priority documents.

The new matter of Bell A has a priority date no earlier than 20 October 2006. This date is nearly two years after the US filing date of the present application and over four years after the priority date of the present application. Bell A is not prior art under Section 102(e). Applicant requests cancellation of this basis for rejection.

- US 7,138,084 to Bell (Bell B)

The Examiner has rejected claims 1, 4 and 22 as anticipated by Bell B. A terminal disclaimer is not possible because these applications are owned by two different

assignees. Applicant believes he is entitled to a patent over Bell B because Bell B does not include every element of the claims of the present application.

Bell B describes a filter having a carbon matrix with a three-dimensional lattice. Bell B does not claim a network of graphitizable carbon and actually teaches against such a network. See col. 1, lines 27-34 (“Known techniques for making carbon-bonded articles include the graphitisation of petroleum pitch and coal tar. These processes require conditions of very high pressure followed by heating to high temperatures in the order of 2,500° C. Such a process is energy inefficient, provides hazardous conditions and can only satisfactorily produce material in sections of several inches in size.”)

Applicant has determined that this preconception of Bell B is, in fact, erroneous. Networks of graphitizable carbon can be made at relatively low temperatures and pressures. In one example, a filter comprising a network of graphitizable carbon was produced at only 700 C. See, US 2005/0229746, paragraph 0086.

Bell B teaches the use of graphite only as a filler in the three-dimensional carbon matrix, and does not describe a network comprising graphite or a graphitizable carbon. Bell B cannot anticipate claims 1, 4 and 22 because it lacks at least one element of the claims. Applicant requests cancelation of this basis of rejection.

- US 11/584,002 (Bell C)

Applicant cannot file a terminal disclaimer because the present application and Bell C do not share a common owner. Bell C is the application which produced Bell A. As explained above, Bell A and correspondingly Bell C are not prior art against the present invention.

- US 10/516438 or US 2005/0263449 to Juma

Applicant submits herewith a terminal disclaimer relative to US Application Number 10/516,438. The terminal disclaimer fee of \$130 under 1.20(d) is included. Applicant requests cancelation of this basis for rejection.

Applicant respectfully submits all pending claims are allowable. Early and favorable action is earnestly solicited on claims 1, 4 and 22-30.

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Respectfully submitted,

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